

Inspect the invisible

Non-invasive gas content measurement
for insulating glass units



Thermal edge bond solutions
for insulating glass

**We are your partner
for durable thermally
optimized edge bond
solutions – worldwide.**

Hello, it's us, Technoform!

As a family company, we know that people empower every business. We firmly believe that the best ideas are always born together. We are Technoform – 1,500 and growing, dedicated innovators that work for our customers worldwide. We think and act consistently in a market-oriented way, in partnership with our customers – and with all our passion for plastics solutions.

Understanding what drives customers and markets since 1969, we develop leading solutions collaboratively. Providing 100% reliability and quality on all levels, we offer the same level of high-quality services and solutions all around the world. 45 sites in over 40 countries ensure you continuous supply wherever you are.

Performing 360° precision and 1,000+ skills, our highly trained team turns individual needs into tailored technological solutions. Delivering quantities from 1 to 1,000,000 our customers can rely on receiving the best available package of quality, quantity, time, and price.

We invite you to browse through this brochure and find out how we can best implement your individual solution together.



Satisfied customers – a question of quality

Insulating glass units at the highest level is both our claim and our promise to you. As an insulating glass manufacturer, window manufacturer, or planner, it is crucial for you to ensure the quality of these products by being able to easily test them during every step of the process. This is how you can provide insulating glass with the highest quality. It pays off with a high degree of process reliability with fewer risks resulting in satisfied customers and thus sustainable success.

Quality check made easy – the Sparklike Laser Portable™

With the Laser Portable™ from Sparklike®, Technoform now offers the possibility of easily and non-destructively measuring the noble gas content of double and triple glazed insulating glass units. The big advantage is that the measurement can be performed for quality control purposes in the middle of the process, at the end of the insulating glass line, or when it has already been installed. This ensures genuine reliability along the entire value chain for everyone involved and gives you full transparency in terms of product quality at all times and the ability to identify any risks at an early stage of the production process.

But the use of the gas analyzer is also useful beyond this: Regular testing with the Sparklike Laser Portable™ gives you important information about the durability and sustainability of modern insulating glass systems.

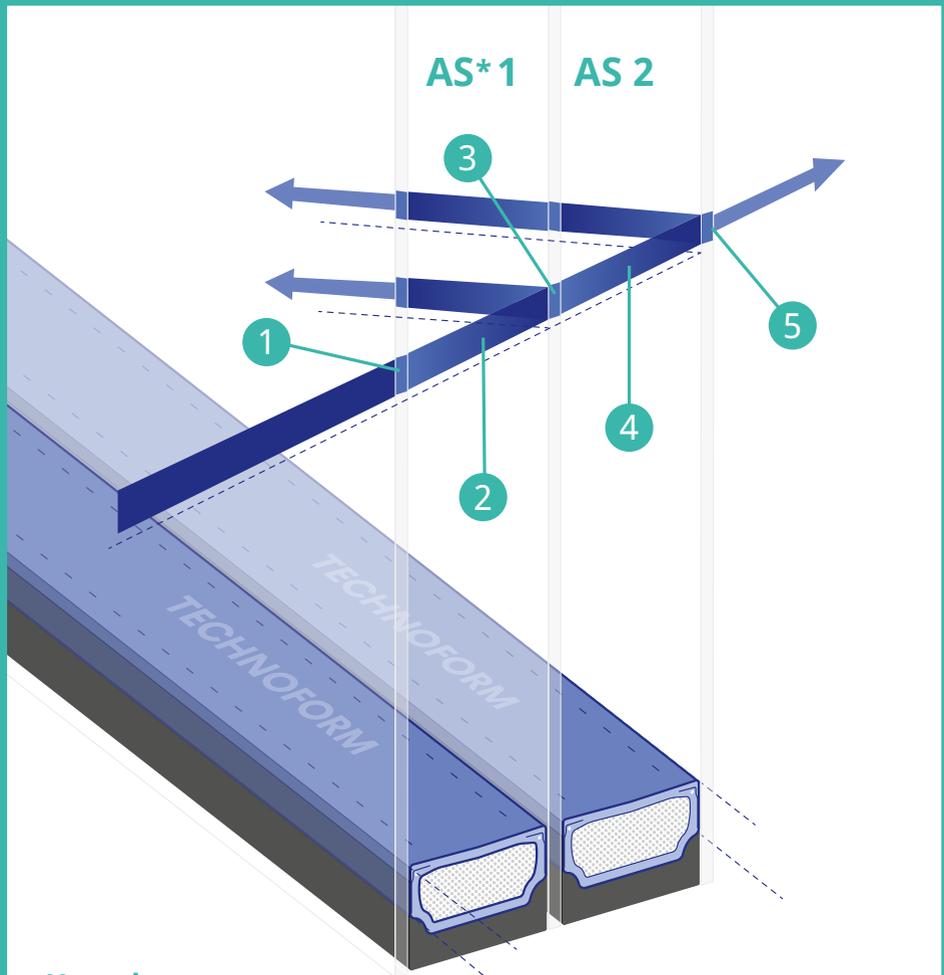


The Sparklike Laser Portable™ is impressively compact and easy to handle. It can be easily used to measure noble gas content virtually anywhere.



WINDSTOPPER

Sparklike
The world's most powerful
handheld car cleaning device



How the Sparklike Laser Portable™ works

Using triple glazing as an example

- The laser penetrates layers ① to ⑤.
- Some of the light is reflected from the surfaces.
- In the layers, some of the light is absorbed.
- The residual oxygen content is determined via the angle and intensity of the backscattered light.
- The noble gas content is calculated.

* Air space (AS)



Non-invasive measurement of the gas concentration

Features of the Sparklike Laser Portable™

- Non-destructive measurement of the noble gas content (Ar, Kr, Xe)
- Measurement through glass coatings and laminated glass
- Measurement of double and triple glazing when installed
- Determination of glass thickness and spacing
- Measurement of IGUs installed at heights of up to 2,000 m
- Annual calibration and maintenance service ensures the functionality and quality of the measurements

Parameter	Functional range
Repeatability of the gas measurements	± 2% with 95% confidence when measuring typical IGUs
Measuring duration	11 – 30 seconds (depending on IGU design and selected settings)
Maximum element thickness	51 mm (from levels 1 – 5) AS width 4 – 40 mm
Glass thickness	2 – 23 mm (including LSG)
Accuracy of glass measurement	± 50 µm
Transmission (permeability of the panes)	> 30%
Commissioning the device	10 – 20 minutes
IGU = Insulating glass unit AS = Air space LSG = Laminated safety glass	

Our service – your benefits

Choose the Sparklike Laser Portable™ and work with Technoform. You benefit from the combination of state-of-the-art technology and many years of expertise for durable solutions for the thermally optimized glass edge bond.

Your benefits at a glance:

- High process reliability and risk mitigation by checking quality from production to installation
- Non-destructive testing of the proper functioning of the gas filling technology
- Significant cost savings, as there is no need for additional test panes
- Fast and location-independent measurement at the installation site
- Automatic documentation of the gas filling level
- Expertise in measuring the gas content in insulating glass units
- Extensive know-how for correct documentation of the data
- Comprehensive competence in the area of edge bonds to optimize processes and the durability of insulating glass units



The compact measuring head provides reliable results in a number of different measuring positions.





Our experts will be happy to familiarize you with the handling and operating principle of the device in a personal meeting.

What we offer:

1. Gas measurement by the experts from Technoform:

The measurement is carried out professionally by a specialist at your location, the results are immediately checked for plausibility, and an official measurement report is created.

2. Rent the Sparklike Laser Portable™ for your own use:

We provide you with the gas analyzer. Upon delivery or collection by the customer, an expert from Technoform will introduce you to the device technology and the measuring method. You can then get started straight away.

For more information:

edgebondservice@technoform.com or +49 561 9583-100



Take a look around – we are closer than you may think

Providing holistic knowledge and technical expertise, we are the can-do partner and problem solver for various industries. This spans from thermal edge bond solutions for architects, building planners, and manufacturers of insulating glass units to a vast range of insulation solutions for aluminum windows, doors, and facades. This also includes high-precision plastic profile solutions and system components for the automotive, aviation, and electrical engineering industries – just to name a few.

From a single component to a perfect system fit approach

In addition to the top quality of our products, we also offer you the best possible support as a partner. As the world market leader in the field of thermally optimized hybrid spacer bars, our new solutions allow us to take overall responsibility for the glass edge bond. The edge bond of insulating glass is a complex system of individual components that must be perfectly matched. This applies both to the production of the insulating glass, for which we contribute thermally optimized solutions, and to further processing and professional installation in the building. In order to achieve an optimum level of durable insulating glass and window quality, cooperation and communication are essential as early as the planning phase, even across areas of responsibility.

Since the requirements for insulating glass are steadily increasing, the components used cannot be considered individually. Rather, the glass edge bond must be thought of holistically and designed in the best possible way for a perfect system fit.

Innovation is teamwork

With our new solutions for the thermally optimized glass edge bond, we offer our customers real added value in terms of sustainability, quality, and durability. We see it as our responsibility to support insulating glass manufacturers, window constructors, planners, and other involved stakeholders with expertise and experience and to promote interdisciplinary cooperation. Together, we can promote the development of innovative and sustainable end-to-end solutions.



TECHNOFORM

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